

What is claimed is:

- 1 1. A method comprising:
2 partitioning a database corresponding to object images into a first partition and
3 a second partition based on a fuzzy similarity analysis of a measure of the object images to a
4 first threshold.

- 1 2. The method of claim 1, further comprising:
2 partitioning each of the first partition and the second partition into at least two
3 portions so that the measure of the object images having a fuzzy similarity more than or equal
4 to a second threshold cluster into a selected one of the at least two portions.

- 1 3. The method of claim 1 further comprising:
2 deriving a feature set for each of the object images from contours of at least
3 two views of objects corresponding to each of the object images.

- 1 4. The method of claim 1, further comprising determining a feature set from
2 image content of a query object image.

- 1 5. The method of claim 4, further comprising using fuzzy logic to search the
2 database for at least one image similar to the query object image.

- 1 6. The method of claim 5, wherein using the fuzzy logic comprises comparing
2 one object image from each of said first and second partitions with said query object image.

- 1 7. The method of claim 6, further comprising:
2 based on the comparison, obtaining the at least one similar image as a match in
3 the partition that indicates maximum similarity with said query object image.

1 8. The method of claim 1, further comprising:
2 forming a similarity matrix for the object images within the database before
3 partitioning the database.

1 9. A method comprising:
2 obtaining a query image; and
3 searching a database corresponding to object images for a solution set having a
4 maximum similarity to the query image using fuzzy logic.

1 10. The method of claim 9, wherein searching the database comprises comparing a
2 single image of each of a plurality of sets within the database to the query image.

1 11. The method of claim 10, wherein comparing the single image comprises
2 comparing a feature vector of the query image to a corresponding feature vector of the single
3 image.

1 12. The method of claim 9, further comprising partitioning the database into a
2 plurality of sets based on fuzzy logic theory.

1 13. The method of claim 12, further comprising partitioning the database into a
2 plurality of levels, each of the levels corresponding to a similarity threshold.

1 14. The method of claim 9, further comprising displaying at least one object image
2 corresponding to the solution set.

1 15. An article comprising a machine-readable storage medium containing
2 instructions that if executed enable a system to:
3 obtain a query image; and
4 search a database corresponding to object images for a solution set having a maximum
5 similarity to the query image using fuzzy logic.

1 16. The article of claim 15, further comprising instructions that if executed enable
2 the system to compare a single image of each of a plurality of sets within the database to the
3 query image.

1 17. The article of claim 15, further comprising instructions that if executed enable
2 the system to partition the database into a plurality of sets based on fuzzy logic.

1 18. The article of claim 16, further comprising instructions that if executed enable
2 the system to compare a feature vector of the query image to a corresponding feature vector of
3 the single image.

1 19. A system comprising:
2 a dynamic random access memory containing instructions that if executed enable the
3 system to partition a database corresponding to object images into a first partition and a
4 second partition based on a fuzzy similarity analysis of a measure of the object images to a
5 first threshold; and
6 a processor coupled to the dynamic random access memory to execute the instructions.

1 20. The system of claim 19, further comprising instructions that if executed enable
2 the system to derive a feature set for each of the object images from contours of at least two
3 views of objects corresponding to each of the object images.

1 21. The system of claim 19, further comprising instructions that if executed enable
2 the system to use fuzzy logic to search the database for at least one image similar to a query
3 object image.

1 22. The system of claim 21, further comprising instructions that if executed enable
2 the system to obtain the at least one similar image as a match in the partition that indicates
3 maximum similarity with said query object image.

1 23. The system of claim 22, further comprising a display coupled to the processor
2 to display the query object image and the at least one similar image.